

REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 7, 8, and 10-12 are presently active; Claims 7, 10, and 11 have been presently amended. Claims 2 and 3 were previously canceled without prejudice. Claims 1, 4, 5-6, and 9 were presently cancelled without prejudice. Claims 12 and 13 have been added.¹

In the outstanding Office Action, the drawings were objected to failing to show every feature of the invention specified in the claims. Claims 7-11 were rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. Claims 1, 4, and 7-11 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the patent issued to Kato et al (U.S. Pat. No. 5,852,504) in view of Sekiguchi et al (U.S. Pat. No. 5,798,864) and in view of Popovich et al (U.S. Pat. No. 6,115,152) and Eichenlaub (U.S. Pat. No. 6,541,034). Claims 5-6 were rejected under 35 U.S.C. § 102(a) as being unpatentable over Kato et al and Sekiguchi et al and Popovich et al and Eichenlaub in view of Hashimoto et al (U.S. Pat. No. 5,515,183).

Regarding the drawing objection. Applicant submits that the drawings show each and every feature of the presently amended and new claims. Hence, the drawing objection has been overcome.

Regarding enablement, M.P.E.P. § 2164.01 states that the test of enablement is whether one reasonably skilled in the art could make or use the invention from the disclosures in the patent coupled with information known in the art *without undue*

¹ Support for new dependent Claims 12 and 13 is found in Applicant's Figure 8 and the discussion thereof in the specification. These features are believed to further distinguish from the applied art of record.

experimentation. In the present case, Applicant shows an arrangement in Figures 11 and 12 which shows one of ordinary skill in the art how systematically to arrange different LEDs on a two dimensional grid pattern, as defined in Claim 7. Further, the specification defines relationships for the optical components spacings (d_1 , d_2 , d_3 , and d_7) in Figures 11 and 12. See page 34 of the specification. Moreover, to assist the examiner in understanding an association of the claim elements with the configurations taught in Applicant's drawings, independent Claim 7 and dependent Claims 10 and 11 are reproduced below with element numbers in bold for emphasis for the purpose of illustration of one specific embodiment of the invention:

7. A color moving-image holographic reproducing device comprising:
(a) a computer **62** configured to create a computer-generated hologram from three-dimensional coordinate data of a three-dimensional object which is externally obtained;
(b) a reflective liquid crystal display **61** connected to the computer **62** and configured to display the-computer-generated hologram;
(c) a half mirror **66** configured to project the displayed computer-generated hologram;
(d) three light-emitting diodes (LEDs) of primary colors red (R), green (G), and blue (B) functioning as reference light sources; and
(e) the LEDs arranged on a two dimensional grid pattern and respectively emitting primary colors of light, red (R), green (G), and blue (B), at the same time, wherein a first LED of the R, G and B LEDs is disposed in a vicinity of a second LED in a horizontal direction and a third LED is disposed in a vicinity of the second LED in a vertical direction orthogonal to the horizontal direction;
wherein optical axes of color light beams from the LEDs are shifted from each other, the light beams are projected to the half mirror **66** and onto the reflective liquid crystal display **61**, and a color holographic image is formed from the computer-generated hologram.

10. The color moving-image holographic reproducing device according to Claim 7, wherein each of the R, G, and B LEDs has a pinhole filter **64** and emits light to a collimator lens **65** to generate parallel light, and the half mirror **66** is illuminated with the parallel light.

11. The color moving-image holographic reproducing device according to Claim 10, wherein the size of a color reconstruction area is determined in accordance with a distance d_1 of the second LED to the first LED and the third LED, a distance d_2 between the pinhole filter **64** and the collimator lens **65**, and a distance d_3 between the reflective liquid crystal display **61** and a field lens **67** that produces a reconstructed image.

Accordingly, with these amendments clarifying the present invention and with this specific illustration of the above claim element in the drawings, it is respectfully submitted that undue experimentation would not be required for one of ordinary skill in the art at the time of the invention to make use the claimed color moving-image holographic reproducing device, given the details set forth in Applicant's specification and drawings.

Thus, the enablement rejection should be removed.

Regarding the rejection on the merits, the Office Action acknowledges on page 6 that Kato et al fail to teach three color light sources arranged so that lights are emitted from a plane formed by the two-dimensional light sources. The Office Action thereafter asserts on page 7 that, in view of Eichenlaub, it would have been obvious to one skilled in the art to arrange three color light sources in a grid pattern that matches the pixels on the liquid crystal display to efficiently illuminate the display to provide full color image display.

Non-analogous art: M.P.E.P. § 2141.02 requires that, for an examiner to rely on a reference under 35 U.S.C. § 103, the reference must be analogous art. The Court in In re GPAC Inc., 57 F.3d 1573, 35 USPQ2d 1116 (Fed. Cir. 1995), noted that:

To support a finding that these twelve references are within the scope of the relevant prior art, we must therefore determine that they are analogous art that is "reasonably pertinent to the particular problem with which the inventor was involved." A reference is reasonably pertinent if, even though it may be in a different field of endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his problem. If a reference disclosure relates to the same problem as that addressed by the claimed invention, "that fact supports use of that reference in an obviousness rejection. [Citations removed]"

In the present case, Applicant submits that problems with electronic holographs (related to the present invention) are not related to problems with stereoscopic imaging. Thus, one of ordinary skill in the art would not be motivated to consider the stereoscopic

imaging techniques of Eichenlaub. Accordingly, Eichenlaub is not analogous art applicable for a 35 U.S.C. § 103 obviousness rejection of Claim 7.

Hence, for this reason alone, independent Claim 7 is believed to patentably define over the applied art of record.

All claim elements not found: M.P.E.P. § 2143.03 requires that, to establish a case of *prima facie* obviousness, all the claim limitations must be taught or suggested by the prior art. In support of its finding of obviousness, the Office on page 7 points to Figure 13 of Eichenlaub to show an arrangement of LEDs in a “two-dimensional grid pattern.” Yet, the arrangement and function of the separate LED elements in Eichenlaub differ from those in Claim 7. Claim 7 defines that the LEDs respectively emit primary colors of light, red (R), green (G), and blue (B), at the same time. Eichenlaub teaches that LEDs are turned on and off in synchronization by an electronic mechanism. See col. 13, lines 1-9, of Eichenlaub.

Hence, with Eichenlaub failing to disclose or suggest three light-emitting diodes (LEDs) of primary colors red (R), green (G), and blue (B) respectively emitting primary colors of light, red (R), green (G), and blue (B), at the same time, but rather teaching on and off synchronization of the LEDs, all the claim elements are not taught or suggested in the applied art.

Hence, for this additional reason, independent Claim 7 is believed to patentably define over the applied art of record.

Teaching away: The on and off synchronization of the LEDs in Eichenlaub *teaches away* from the claimed invention. The Court in *In re Gurley*, 27 F.3d 551, 553, 31 USPQ2d 1130, 1131 (Fed. Cir. 1994) stated that:

A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or ***would be led in a direction divergent from the path that was taken by the applicant.*** The degree of teaching away will of course depend on the particular facts; in general, a reference will teach away if it suggests that the line of development flowing from the reference's disclosure

is unlikely to be productive of the result sought by the applicant. [Emphasis added.]

Rebuttal evidence: These differences in function are important in deciding for the non-obviousness of Claim 7. Guidelines for the Patent and Trademark Office, published in Federal Register Vol. 72, No. 195, on Wednesday October 10, 2007 entitled: "Examination Guidelines for Determining Obviousness under 35 U.S.C. 103 in View of the Supreme Court Decision in KSR International v. Teleflex Inc," indicate that:

Office personnel should consider all rebuttal evidence that is timely presented by the applicants when reevaluating any obviousness determination. Rebuttal evidence may include evidence of "secondary considerations," such as "commercial success, long felt but unsolved needs, [and] failure of others", and may also include evidence of unexpected results. Office personnel must articulate findings of fact that support the rationale relied upon in an obviousness rejection. As a result, applicants are likely to submit evidence to rebut the fact finding made by Office personnel. For example, in the case of a claim to a combination, applicants may submit evidence or argument to demonstrate that:

- (1) one of ordinary skill in the art could not have combined the claimed elements by known methods (e.g., due to technological difficulties);
- (2) the elements in combination do not merely perform the function that each element performs separately; or
- (3) the results of the claimed combination were unexpected.

Once the applicant has presented rebuttal evidence, Office personnel should reconsider any initial obviousness determination in view of the entire record. All the rejections of record and proposed rejections and their bases should be reviewed to confirm the continued viability. The Office action should clearly communicate the Office's findings and conclusions, articulating how the conclusions are supported by the findings.

Here, in the present case, Applicant besides amending the claims to define features not in Eichenlaub has presented rebuttal evidence 1) for *teaching away* and 2) for why the claimed elements in combination *do not function as each element separately functions* in Eichenlaub.

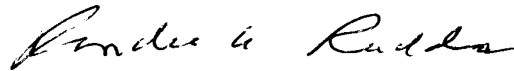
Hence, for all these reason, independent Claim 7 (and the claims dependent therefrom) are believed to patentably defined over the references of record.

Finally, should there not be a favorable decision for patentability, Applicant requests (as directed by the guidelines) that the Office clearly communicate the Office's findings and conclusions, articulating how the conclusions are supported by the findings in order for Applicant to decide whether or not an appeal is warranted.

Consequently, in view of the present amendment and in light of the above discussions, the outstanding grounds for rejection are believed to have been overcome. The application as amended herewith is believed to be in condition for formal allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.



Gregory J. Maier
Attorney of Record
Registration No. 25,599
Ronald A. Rudder, Ph.D.
Registration No. 45,618

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 08/03)
GJM:RAR:clh